

**ABSTRACT OF THE DISCLOSURE**

Disclosed are systems or apparatuses and methods for forming a junction between conductive fibers that are incorporated into a fabric. Briefly, one method includes the steps of removing insulation from two intersecting individually insulated conductive fibers to expose the individually conductive fibers, bringing the exposed individually conductive fibers into contact with each other at a junction point, and forming a molecular bond between the conductive fibers at the junction point. Also disclosed are systems for forming a junction between conductive fibers that are incorporated into a fabric. In this regard, one embodiment of such a system can include a first apparatus that removes insulation from two intersecting individually insulated conductive fibers to expose the individually conductive fibers, a second apparatus that brings the exposed individually conductive fibers into contact with each other at a junction point, and a third apparatus that aids in formation of a molecular bond between the conductive fibers at the junction point.